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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/177,815	10/23/1998	KYOUNG-SU KIM	1363.1004/MD	3622

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EXAMINER

PHAM, ROBERT T

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 03/28/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

7m

Office Action Summary

Application No.

09/177,815

Applicant(s)

KIM ET AL.

Examiner

Robert T Pham

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 31 March 1999 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawing changes received on 3/31/1999 are approved. In addition, "Second luminance" in (215) should be --First luminance--; and "First luminance" should be -- Second luminance-- in (212) to match with claim 13 and 17. Correction is required.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson U.S. Patent 6,226,794, and further in view of Choi U.S. Patent 5,633,688.

Regarding claim 1, Anderson discloses a digital broadcasting TV receiver capable of receiving analog TV signal, wherein:

The "selecting" step reads on a user selecting either an analog or digital signal Figure 1A, control signal from (126) to (106), column 4, 49-51.

The "receiving" and "separating" digital broadcasting signal step reads on Figure 1C (160), column 5, 29-37.

The "receiving" analog broadcasting signal, "separating" analog audio and video signal step reads on Figure 1A (134), column 4, lines 54-67.

The "selectively encoding" MPEG video signal step reads on Figure 1C (175), column 5, lines 58-62.

The "selectively transmitting" analog or digital broadcasting video step reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5.

The "selectively transmitting" analog or digital broadcasting audio step reads on Figure 1C (194), column 6, lines 23-34.

Anderson does not disclose "extracting" synchronous signal, and "adjusting" the analog synchronous signal to the digital synchronous signal steps.

Choi discloses steps wherein a sync separator (10) separates analog sync signal from analog video signal; uses analog sync signal to adjust the clock generated by the clock signal generator (20). The adjusted clock is then applied to generate sync signal (30) for the video superimposing circuit (50), as shown in Figure 1 (10, 20, 30, 40 and 50), and described in column 1, lines 38-62, column 2, 33-47, and column 3, 57-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anderson to include analog sync signal separation and adjustment steps, as disclosed by Choi, to minimize jitter and distortion when viewer switches reception between digital and analog broadcasting.

Regarding claim 2, Anderson discloses the "selective encoding" MPEG video signal step reads on Figure 1C (175), column 5, lines 58-62.

Regarding claim 3, Anderson discloses the "selective transmitting" analog or digital broadcasting video step reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5.

Regarding claim 4, Anderson discloses the "selective transmitting" analog digital broadcasting video step reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5.

Regarding claim 5, Anderson discloses a digital broadcasting receiver as claimed, wherein:

A controller generating a plurality of control signals reads on Figure 1A (126), column 6, lines 53-58.

A tuner for digital broadcasting and analog broadcasting signal reads on Figure 1A ((106), column 4, lines 49-51.

A synchronous separation unit to separate analog video and audio signal reads on Figure 1A (134), column 4, lines 51-56

A video encoder unit reads on Figure 1C (175), column 5, lines 58-62.

A video mix unit reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5.

A digital/analog converting unit for converting digital audio into analog reads on Figure 1C (190), column 6, lines 19-22.

An audio selection unit reads on Figure 1C (194), column 6, lines 23-34.

Anderson does not disclose a synchronous separation unit to extract synchronous signal from analog broadcasting signal, or an additional information process unit to generate additional information, as claimed.

Choi discloses an apparatus wherein a sync separator (10) separates analog sync signal from analog video signal; uses analog sync signal to generate an adjusted clock (20), which is then applied to generate sync signal (30) for the video

superimposing circuit (50), as shown in Figure 1 (10, 20, 30, 40 and 50), and described in column 1, lines 38-62, column 2, 33-47, and column 3, 57-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anderson to include analog sync signal separation and adjusted clock generation units to adjust the phase difference between analog and digital signal, as disclosed by Choi, to minimize jitter and distortion when viewer switches reception between digital and analog broadcasting.

Regarding claim 6, a luminance/color separation unit coupled to the video mix unit reads on Figure 1C (175), column 5, lines 58-62.

Regarding claim 7, a video mix unit overlaps the additional information onto the analog video signal reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5, and in view of Choi Figure 1, column 1, lines 38-62, column 2, 33-47, and column 3, 57-67.

Regarding claim 8, Anderson discloses a digital broadcasting receiver as claimed, wherein:

A luminance/color separation unit for analog broadcasting signal reads on Figure 1C (138), column 4, lines 59-62.

A switching unit to detect, change and transmit the separated luminance and color signal reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5.

Regarding claims 9 and 10, a video mix unit mapping and outputting additional information reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5, and in view of Choi Figure 1, column 1, lines 38-62, column 2, 33-47, and column 3, 57-67.

Regarding claim 11, Anderson discloses a digital broadcast receiver, wherein:

A controller generating a plurality of control signals reads on Figure 1A (126).

A synchronous separation unit to separate analog video and audio signal reads on Figure 1A (134), column 4, lines 51-56

A video encoder unit reads on Figure 1C (175), column 5, lines 58-62.

A video mix unit to select and transmit video signal reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5

Anderson does not disclose a synchronous separation unit to extract synchronous signal from analog broadcasting signal, or a video mix unit to overlap additional information, as claimed.

Choi discloses an apparatus wherein a sync separator (10) separates analog sync signal from analog video signal; uses analog sync signal to generate an adjusted clock (20), which is then applied to generate sync signal (30) for the video superimposing circuit (50), as shown in Figure 1 (10, 20, 30, 40 and 50), and described in column 1, lines 38-62, column 2, 33-47, and column 3, 57-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anderson to include analog sync signal separation, adjusted clock generation, and the superimposing circuit units, as disclosed by Choi, to minimize jitter and distortion when viewer switches reception between digital and analog broadcasting.

Regarding claim 12, Anderson discloses a digital broadcast receiver as claimed, wherein:

A digital/analog converter for converting digital audio into analog reads on Figure 1C (190), column 6, lines 19-22.

An audio selection unit reads on Figure 1C (194), column 6, lines 23-34.

Regarding claim 13, a luminance/color separation unit coupled to the video mix unit reads on Figure 1C (175), column 5, lines 58-62.

Regarding claim 14, Anderson discloses a digital broadcast receiver as claimed, wherein:

A luminance/color separation unit for analog broadcasting signal reads on Figure 1C (138), column 4, lines 59-62.

A switching unit to detect, change and transmit the separated luminance and color signal reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5.

Regarding claim 15, an additional information processing unit to generate additional information reads on Choi Figure 1, column 1, lines 38-62, column 2, 33-47, and column 3, 57-67.

Regarding claim 16, a video mix unit mapping additional information with the analog video signal reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5, and in view of Choi Figure 1, column 1, lines 38-62, column 2, 33-47, and column 3, 57-67.

Regarding claim 17, Anderson discloses a digital broadcast receiver as claimed, wherein:

A luminance/color separation unit for analog broadcasting signal reads on Figure 1C (138), column 4, lines 59-62.

A switching unit to detect and change the separated luminance and color signal reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5.

Regarding claim 18, Anderson discloses a digital broadcasting receiver as claimed, wherein:

A tuning unit reads on Figure 1A ((106), column 4, lines 49-51.

A processing unit to process digital and analog broadcasting signals reads on Figure 1A-1C.

Anderson does not disclose synchronizing phases of digital and analog broadcasting signals, as claimed.

Choi discloses an apparatus wherein a sync separator (10) separates analog sync signal from analog video signal; uses analog sync signal to generate an adjusted clock (20), which is then applied to generate sync signal (30) for the video superimposing circuit (50), as shown in Figure 1 (10, 20, 30, 40 and 50), and described in column 1, lines 38-62, column 2, 33-47, and column 3, 57-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anderson to include analog sync signal separation and adjusted clock generation units to adjust the phase difference between analog and digital signal, as disclosed by Choi, to minimize jitter and distortion when viewer switches reception between digital and analog broadcasting.

Regarding claim 19, Anderson discloses a digital broadcasting receiver as in claim 18, wherein:

a synchronous separation unit to separate analog synchronous signal reads on Choi Figure 1, column 1, lines 38-62, column 2, 33-47, and column 3, 57-67.

Regarding claim 20, Anderson discloses a digital broadcasting receiver as claimed, wherein:

A tuning unit reads on Figure 1A ((106), column 4, lines 49-51.

A processing unit to process digital and analog broadcasting signals reads on Figure 1A-1C.

A video mix unit to select and transmit video signal reads on Figure 1C (176), column 5, lines 63-67 and column 6, lines 1-5

Anderson does not disclose an additional information processing unit, as claimed.

Choi discloses an apparatus wherein a sync separator (10) separates analog sync signal from analog video signal; uses analog sync signal to generate an adjusted clock (20), which is then applied to generate sync signal (30) for the video superimposing circuit (50), as shown in Figure 1 (10, 20, 30, 40 and 50), and described in column 1, lines 38-62, column 2, 33-47, and column 3, 57-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anderson to include analog sync signal separation, adjusted clock generation, and the superimposing circuit units, as disclosed by Choi, to minimize jitter and distortion when viewer switches reception between digital and analog broadcasting.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Duffield U.S. Patent 5,461,427 discloses a television receiver having the capability to associate an HDTV and an NTSC channel

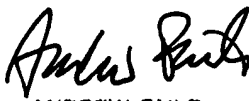
Reitmeier U.S. Patent 6,115,080 discloses channel selection methodology in an ATSC/NTSC television receiver

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert T Pham whose telephone number is 703-305-4810. The examiner can normally be reached on M-F 7:30-5; every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9700.

Robert Pham
March 21, 2002


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